



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

BETHESDA 14, MD.

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NATIONAL INSTITUTES OF HEALTH

AIR MAIL

Dr. Joshua Lederberg
c/o Bacteriology Department
Melbourne University
Carlton N3, Vic., Australia

Dear Josh:

It was good to get your note of August 29, and to know that things are going well. Your suggestion of using viruses to determine the significance of cytoplasmic processes seems to me to have the shoe on the wrong foot. We are now about as sure as we have a right to be that no cytoplasmic contact is involved, the separation can be at least 20 microns. This is based on electron microscopy of several filter porosities and transmission of effects over considerably greater distances (60-80 microns) than the visualizable penetration. This being the case, it has seemed to me that the several filter porosities and thicknesses can be used to gain information on the conditions for transfer of virus. I am not persuaded by the fact that negligible virus is found in cultures without grinding the cells that virus must pass from cytoplasm to cytoplasm without intervening material. The amount actually in transit may be small because the intervening space is small. If the space is increased, by interposing the filter, transfer may still be possible providing the space is filled by intercellular materials. Indeed, this is exactly why I do not regard our results as excluding induction on a viroid model, and why I would like to know more about the passage of known viruses through the filter. So I agree that studies of poxviruses might be very illuminating - but for different reasons.

I am very well satisfied with the Kornberg and Yanofsky appointments and with most else that I hear from Stanford, including the probability of a new biology building in the next several years. All in all I have no regrets about the move and, now that things are winding up here, am looking forward to resettling. We hope to be on our way by the first of December and in Palo Alto by the first of the year.

Best to you and Esther.

Sincerely,

Clifford Grobstein